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The Economics of Slavery, Forced Labor and Human Trafficking

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for

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Introduction

Slavery, forced labor and human trafficking involve the use of coercion in the production of goods and services. Such coercion always implies the loss of a persons' freedom and represents first and foremost a violation of human rights. The *Universal Declaration of Human Rights*, proclaimed by the General Assembly of the United Nations in 1948 establishes that "All human beings are born free" (Article 1) and "No one shall be held in slavery or servitude" (Article 4). This principle is also established in the *International Covenant on Civil and Political Rights* adopted at the United Nations in 1966. Unfortunately, in spite of being almost universally prohibited, coerced labor continues to exist.

Applying economic theory and numbers to subjects such as slavery, forced labor and human trafficking can be sensitive, and has sometimes been perceived as dehumanizing the problem or diminishing the significance of the moral issue. One could argue, on the contrary, that economic analysis can help to better understand the nature and causes of these practices, and help identify policies for their prevention and elimination. However, because the subjects are so sensitive, pure economic thinking is perhaps inappropriate. The present paper - while rooted in economics –allows for some multidisciplinary perspectives, drawing also on social sciences such as anthropology or sociology. Economists who venture into this field of research should equip themselves with solid understanding of the qualitative dimensions of coerced labor.

We start our chapter with the economics slavery (Section I), highlighting those questions and aspects which remain relevant to the debates on contemporary forced labor and human trafficking today. The second part of the chapter (Section II) then reviews the economic analysis of contemporary forced labor and human trafficking in the private economy, before discussing very briefly state-imposed forced labor. This review of the literature is necessarily very selective.

Much of the chapter focuses on the economic motivations that help explain the use of coercion, while discussing also the economic consequences - particularly in the area of economic efficiency and international trade. The chapter does not discuss the

specific problem of child labor (which is the focus of a different chapter in this volume). Some of the findings discussed in the second part of the chapter are still tentative. This is because the economic aspects of contemporary forced labor and human trafficking are much less understood and researched than in the case of other core labor standards. While there is now a large literature on child labor, discrimination or collective bargaining, much more basic research is needed to fully understand the contemporary manifestations of coercion in the labor market.

I. Slavery

1.1 The Legislation

Slavery was defined in the League of Nations *Slavery Convention* of 1926 as “the status or condition of a person over whom any or all of the powers attaching to the right of ownership are exercised” (Article I). Hence slavery is a form of property rights in women and men. According to the conventional wisdom, such slavery emerged “at the dawn of civilization, when mankind passed from hunting and nomadic pastoral life into primitive agriculture” (Fogel and Engerman, 1974, p.13).

Both Greek city-states and the Roman Empire relied in some important ways upon the work of slaves, who were usually taken from the territories of defeated enemies or shipped from border areas. Although there are different views on the degree to which ancient societies depended on slavery, the majority view is that the Ancient Greeks relied on some forms of coerced labor “at all times and in all places” (Finley, 1982, p.97). Later, in the 7th century, a large slave trade was established from Africa towards Islamic societies, while the 16th century saw the expansion of the transatlantic slave trade. Slaves were “stolen in Africa to work the lands stolen from the Indians in America” (Williams, 1944, p.9). The cruelty and suffering of this slavery has been widely documented.

The tide turned against slavery and the slave trade in the 19th century. Britain abolished the slave trade in all its colonies in 1807 and the United States prohibited the importation of slaves one year later. For a few years, slavery survived the end of the transatlantic trade. Britain abolished slavery throughout its Empire in 1833. In the

U.S., slavery and involuntary servitude were outlawed after “a bloody, protracted, and extraordinarily costly Civil War” (Margo, 1998, p.51) in 1865 with the Amendment XIII, § 1, of the Constitution. The last country on the American continent to abolish slavery was Brazil in 1888. In other parts of the world, slavery was sometimes tolerated much longer, such as in Saudi Arabia and Yemen where it was abolished in 1962 (Bales, 2000, p.42).

The first international instrument to condemn slavery was the *Declaration Relative to the Universal Abolition of the Slave Trade*, adopted by the Congress of Vienna in 1815. This declaration was followed by a number of bilateral and multilateral agreements which contained provisions against slavery. The most significant step forward at international level, however, was the adoption of the above-mentioned *Slavery Convention* by the League of Nations in 1926. With its entry into force, all contracting parties agreed for the first time “to prevent and suppress the slave trade” and “to bring about, progressively and as soon as possible, the complete abolition of slavery in all its forms”.

According to legal scholars, such as Allain (2007), the definition of slavery in the *Slavery Convention* covers both slavery *de jure* (the slavery “status”) and slavery *de facto* (the slavery “condition”). These scholars logically argue that the abolition of legal slavery (i.e. the disappearance of slavery from written legislation) does not necessarily imply the abolition of slavery *de facto*. According to this view, a person may be a slave either if the property of one person by another person is recognized by law, or if it results from a custom - even if such ownership is illegal. Cases of “enslavement” are now considered a crime against humanity under the *Rome Statute*, and the charge of enslavement can be brought before the International Criminal Court.

1.2 The magnitude of slavery

How much slavery was there? On Roman slavery, Scheidel (2007) observes that there are hardly any genuine statistics available. Therefore, estimates “may at best produce a range of competing probabilities instead of a single authoritative reconstruction” (p.2). With a probabilistic model based on the likely demand for slaves in different economic sectors, Scheidel estimates that in Italy that there were between 1 and 1.5

million slaves at the peak of the slavery regime, equivalent to some 15-25% of the total population. Because the share of slaves was lower in the other regions of the Empire (in Roman Egypt census returns suggest that 5%-10% of the population were slaves), the author estimates that there were a total of 5 to 8 million slaves, equivalent to 7%-10% of the imperial population. This implies, of course, that during the millennium “from the emergence of the Roman empire to its eventual decline, at least 100 million people – and possibly more – were seized or sold as slaves throughout the Mediterranean and its hinterlands” (p.18).

What about the volume of the transatlantic slave trade? The impressive *Trans-Atlantic Slave Trade* database (Eltis, Behrendt, Richardson and Klein, 1999) contains information on several thousands of slave voyages disaggregated by the nationality of the slave carrier, with information on the number of slaves registered by region of departure and by region of arrival. According to Eltis (2001), the coverage of this database is fairly complete and includes the large majority of all existing voyages. Allowing for a small share of unreported voyages, the author estimates total departures at 11 million slaves and total arrivals at 9.6 million (the others died on the way). This is broadly in line with previous – somewhat less meticulous - estimates by Curtin (1969) and others. According to the data presented in Eltis (2001), nearly 4 million slaves were shipped to Brazil, and another 3 million people were transported to the British colonies (of which more than 1 million to Jamaica). Spanish colonies (mainly Cuba) absorbed about 1.4 million slaves, and North America imported an estimated 360'000 slaves. Most of these slaves were traded in the 19th century.

The relatively small proportion of slave imports into the United States should not be misinterpreted. According to Fogel and Engerman (1974, p.29), “despite its peripheral role in the Atlantic slave trade the U.S. was, during the three decades preceding the Civil war, the greatest slave power in the Western world and the bulwark of resistance to the abolition of slavery”. Indeed, contrary to the Caribbean islands (where tropical diseases killed many slaves), North America had a *natural increase* in the number of slaves. As a result of the faster growth in the slave population, the U.S. probably accounted for more than a third of all the slaves in the Western world in the year 1825.

1.3 Demand and supply in the repugnant market

Among early scholars, there has been little debate on the economics of slavery. Ancient thinkers have concentrated mainly on the ethical aspects of slavery. Aristotle considered for example that “some men are by nature free, and others slaves, and that for these latter slavery is both expedient and right” (Aristotle, Book I). Slavery was also largely unchallenged in the Roman Empire. The study of slavery as a social institution only dates back to the beginning of the modern world and the Renaissance, and was later strengthened by the abolitionist movement (Patterson, 1977, p. 407).

The systematic study of economic aspects of slavery emerged in the second half of the 20th century. It was perhaps Eric Williams (scholar and later prime minister of Trinidad and Tobago from 1961 to 1981) who brought economics to the forefront of the debate, with the publication of *Capitalism and Slavery* in 1944. Williams described slavery as “an economic institution” designed to solve the “problem of labor” (1944, p. 5 and 12). He was later followed by many others, who described slavery as a market – or a “repugnant market” (Roth 2007, p.39) - with a demand and a supply, and with fluctuating prices.

The demand for slaves in the Americas came primarily from sugar plantations, tobacco farms, coffee producers, cotton farms, gold and silver mines, or indigo and cacao growers. The role of sugar in the demand for slaves can hardly be over-emphasized. According to Eltis (2001), until 1820 about 90 percent of the slaves were trafficked across the Atlantic for the purpose of sugar production. The “sugar islands” were organized around the plantation system, characterized by relatively large-scale field operations and routine work, and were mostly engaged in production for exports. “Strange that an article like sugar, so sweet and necessary to human existence, should have occasioned such crimes and bloodshed!” (Williams, 1944, p.27).

In the United States, the demand for slaves was mostly derived from the demand for cotton, sugar, rice and tobacco. The production of tobacco dominated at the end of the 18th century, after which slavery was progressively redirected towards cotton. This switch from tobacco to cotton, determined by the changing structure of the demand for U.S. crops, led to a geographic relocation of the slave population, from the area

around Chesapeake Bay (mainly Maryland and Virginia) towards Georgia, Alabama, Mississippi, Louisiana and Texas.

On the supply side, traffickers organized the slave trade. In the Roman Empire, slaves were supplied through the capture of enemy combatants and civilians in war, as well as through natural reproduction, captures by pirates, and purchase of slaves from beyond the Roman frontiers. In the case of war-time enslavements, merchants often followed Roman armies and bought up newly captured slaves on the spot. In other cases, slaves were moved to Rome or other more suitable locations where they could be auctioned off and sold. In these markets, slaves were displayed on platforms and could be undressed for inspection (Scheidel, 2007). In the case of the transatlantic slave trade, different trafficking networks supplied different destinations. Portuguese traders supplied slaves to Brazil, Spanish vessels supplied Spanish America, and French vessels supplied the plantation colony of St. Domingue (now Haiti). Overall, from 1519 – 1867, Portuguese and British vessels dominated the trade, transporting about three quarters of all the slaves across the Atlantic (Eltis, 2001). At the peak of the British traffic in the 1790s, a large slave vessel left England every second day.

Prices of slaves have generally fluctuated with changes in supply or demand. Periods of mass enslavement in the Roman Empire, for example, were accompanied by a temporary fall in the price of slaves. According to Scheidel (2007), real slave prices in the first three centuries AD were of the order of about 4 tons of wheat, but “prices were highly sensitive to age, and that skill premiums could be very considerable, running to high multiples of base rates” (p.13). Later, the price of slaves in the U.S., fluctuated between 5’000 – 14’000 US\$ (2003 dollars) (Coleman and Hutchinson, 2005).

1.4 Economic Theory

Classical economists believed that slavery was unprofitable. Adam Smith for example was of the view that free labor was more motivated, more productive and more profitable. In *The Wealth of Nations* he explained that “the work done by slaves, though it appears to cost only their maintenance, is in the end the dearest of any. A person who can acquire no property can have no other interest than to eat as much,

and to labor as little as possible" (quoted in Williams, 1944, p.6). This interpretation remained the conventional wisdom until the 1960s, when most U.S. academics were of the view that slaveholdings were unprofitable farms kept in operation by a group of people essentially concerned with their prestige and their political and cultural hegemony. Therefore, the slave system was often considered as moribund on the eve of the Civil War.

Evsey Domar (1970) formulated (or reformulated) an alternative hypothesis. He argued that slave owners derived an economic benefit from the use of slavery due to the slaves' lower unit labor costs (i.e. lower labor costs relative to productivity) relative to free workers. He pointed out that even if the average productivity of free labor is superior to that of slaves, slavery will remain in the interest of slave owners if the savings in terms of labor costs are large enough. He also noted that when economies develop, capital accumulates and technology changes, we cannot be sure that the profitability of slavery will diminish – since such a process will normally increase the productivity of both free workers and slaves, and also drive up wages of free labor (and hence possibly make slavery even more attractive). The invention of the cotton gin arguably made slavery more profitable.

Domar considered slavery to be more rational in places where land is abundant and labor is scarce. In such places – he reasoned - competition among employers for free labor can raise wages so much as to make it impossible to extract any rent from the available land. Thus, it is only by tying labor to the landowner, and by appropriating all or most of slaves' income above some subsistence level, that landowners can derive rents from their land. This can explain why slavery was used in North America. Domar conjectured that slavery was less likely in traditional societies, where labor abundance keeps the marginal product of labor close to subsistence level and where, therefore, free labor costs little more than slave labor - while being "less bothersome and more productive".

Did slavery benefit the metropolitan powers? Slavery was part of a triangular trade. British slaving merchants sailed to African ports, where they purchased slaves in exchange for European textiles, manufactures, firearms, gunpowder, and alcohol. They then continued their traffic across the Atlantic towards the American continent,

where they sold the slaves to planters in exchange for sugar, tobacco, coffee and other exports (Behrendt, 2001). Was this beneficial to Europe? Classical economists have much criticized the mercantilist theories, which tended to conflate the interest of European merchants with the broader national interests. They have also forcefully criticized mercantilism and the merchants' negative attitude towards competition as well as their monopolistic control of prices. Adam Smith in the *Wealth of Nations* considered that because of these monopolies "Great Britain derives nothing but loss from the dominion which she assumes over her colonies" (Vol.II, p.199).

The close temporal association between slavery in the Americas and the industrial revolution in Europe nevertheless triggered a debate about the so-called "Williams hypothesis" that slavery in British colonies has contributed substantially to English industrial growth in the second half of the 18th century. One way this may have occurred is through the gains from international trade. Slavery both increased production and reduced the world prices of cotton, sugar, coffee, tobacco and other commodities, leading to a massive expansion in transatlantic trade.

Inikori (1992), who examined the role of slavery in the growth and development of Atlantic commerce between 1650 and 1800, estimates that about three quarter of all exports from the Americas during that period was produced by slaves. Acemoglu, Johnson, and Robinson (2005) also argue that the growth of the Atlantic trade strengthened merchant groups against the power of the monarchy, and was central in establishing the protection of the property rights which permitted economic growth in Europe.

I.5 Empirical analysis

The profitability of slavery

Empirical studies on the productivity and profitability of slavery started in the 1960s and 1970s, making use of large datasets long held in archives. A group of U.S. scholars investigated slavery with the tools of "cliometrics" - the application of econometrics to the study of history. Using a standard capital model, Alfred Conrad and John Meyer (1958) pioneered this work by estimating the rate of return on an

investment in slaves. They found that slaves were indeed a relatively profitable investment compared to other types of investments.

A few years later, a passionate debate was triggered by the publication of *Time on the Cross* by Fogel and Engerman (1974). Using 1860 data for several thousand farms, the authors compared agricultural total factor productivity (output divided by the average amount of labor, land, and capital inputs) in the Northern U.S. and in the slave-based South. They found that with the same quantity of inputs, the South produced on average about 30% to 40% more output than the North, and that nearly all this advantage was due to the higher efficiency of the large slave farms which had more than 15 slaves. On average, they found that southern slave farms were 28 percent more efficient than southern farms with free labor, and 40 percent more efficient than northern farms (1974, p.192).

Fogel and Engerman attributed the higher productivity of slaves to the “gang system”, through which planters could achieve higher specialization and higher intensity of effort. These gangs, or teams, were characterized by the interdependence of labor, with different “types of hands who followed one another in a fixed procession” (p.203), not unlike a modern assembly line or a military system. According to the authors, this system was complemented with “a flexible and exceedingly effective incentive system” which included negative incentives, such as whipping or confinement in stocks, as well as positive incentives in the form of material rewards, holidays, year-end bonuses, or small patches of land. Such a management system was impossible with free labor. After the abolition of slavery, planters found that even by doubling wages they could not attract free laborers into such type of work – hence demonstrating that the unit cost of slave labor (per equal-efficiency hour) was indeed below that of free labor, as hypothesized by Domar.

Time on the Cross was heavily challenged on various methodological accounts (see the fascinating debates in the *American Economic Review*, with Fogel and Engerman, 1977 and 1980, Haskell, 1979, Schaefer and Schmitz, 1979, David and Temin, 1979, Wright, 1979). Challengers considered that Fogel and Engerman’s econometric results could be explained by a number of other reasons, including longer working hours of slaves, extraordinarily high cotton yields or prices in 1860, the larger

proportion of cotton in the total output of large farms, more rapid depletion of land in the South, or closer location to markets of large slave plantations. There is also a more general question as to what exactly total factor productivity measures. More recently, Field (1988) using the same data as Fogel and Engerman but a more sophisticated methodology, confirmed that in the cotton farms the productivity of slave labor was higher than that of free labor.

Many intellectuals of the time also accused *Time on the Cross* to somehow “justify” slavery. According to Fogel and Engerman, however, their results showed that slavery was not about to die from economic self-strangulation and that “cliometric research has served to emphasize the deeply moral nature of the antislavery crusade. Slavery was bad not because it was unprofitable and inefficient, or because it failed to deliver a high rate of economic growth, but because, in a world increasingly dedicated to personal liberty, it was the most malignant remnant of the past and the greatest obstacle to the continued expansion of the realm of individual choice” (1980, p.690).

The “Williams hypothesis”

The “Williams hypothesis” (that Europe benefited economically from slavery in the colonies) remains controversial. Engerman (1972) has dismissed this hypothesis on the ground of a “small ratios” argument. He estimated for a series of years that the sum of the profits of the slave trade plus the profits arising from trade with the colonies was equal to less than 5 percent of British gross national product. In 1770, profits from the slave trade alone (excluding profits from commodity trade) represented less than 0.6% of British national income, about 8% of total investment, and 39% of commercial and industrial investment. In his view, these figures – which represent an upper limit - are too small for slavery to have been a key determinant of European industrial growth.

Others, however, disagree with this interpretation. According to Solow (1985, p.106), these ratios are not small; “they are enormous” (on this “small-ratios” argument see also Darity, 1992). Solow also contends that the amount of profits relative to national output represents a bad measure of slavery’s contribution to growth, and that the economic contribution of a colony should be measured by the difference earned by

the resources employed in the colonies compared to what they would have earned in the next best alternative. In her assessment, slavery provided an elastic supply of a particularly cheap form of labor which ensured that the capital invested in the colonies obtained a higher rate of return than alternative investments in Europe. These higher returns, in turn, represented a significant source of new investment into English industry.

I. 6 Slavery and its legacy today

One legacy of slavery today is racial discrimination. Dymski (2000) argues that in the U.S., structural discrimination “can be understood as the manifestation in the present day of the legacy of racial exclusion that has built up over the past. For African Americans, the historical root of the structural discrimination is in the period of slavery” (p.74). Possible reparation for slavery therefore include not only providing the black population with restitution for its slave ancestors’ unpaid labor, but also undoing the effects of racial discrimination and providing the black community with the share of income and wealth it would have had if it had been treated like other immigrant groups. Present-value estimates of the appropriate magnitude of the reparations payments which would be necessary to cover the economic “debt” for slavery are usually in the range of US\$ 5 -10 trillion (Darity and Frank, 2003).

Labor market discrimination persists in other countries too. In Brazil, despite significant improvements over the last few years, the median hourly wages of black women and black men remain significantly lower than that of white men (see ILO, 2007). According to Fernando Henrique Cardoso (2006), sociologist and former President of Brazil, “the legacy of slavery (...) left one of the world’s most unjust traditions of brutality, exclusion and exploitation” (p.5). Discrimination against people of slave-descent also persists in some countries of West Africa, such as in Niger (Kadi Oumani, 2005).

Actual cases of enslavement have been reported in Sudan (see ILO, 2005), where NGOs have attempted to help by purchasing slaves in order to release them - so-called redemption programs (on this topic see Appiah and Bunzl, 2007). Economic reasoning, however, suggest that programmes aimed at purchasing the freedom of

slaves can backfire by creating a market for slaves and, hence, increase incentives for slave-raiders to capture more slaves. Economic models show that this can occur either because redemption – by increasing the demand for slaves - drives up the price of slaves or because it reduces the time for slave-raiders to find buyers (see Karlan and Krueger, 2007, or Rogers and Swinnerton, 2007). This distortion of incentives means that redemption projects may free existing slaves and reduce the stock of slaves, but may also expose more people to a spell of slavery.

II. Forced Labor and Human Trafficking

II.1 The Legislation

Slavery was not the only form of coerced labor in history. Spanish conquistadores had imposed forced labor on indigenous peoples in mines and other activities. After the abolition of the slave trade, America continued to import indentured servants - people who agreed to bonded labor in return for their passage - until about 1820 or 1830. According to Steinfeld (2001), a legal form of labor coercion also existed in Europe in the 19th century, when workers could be punished criminally and sentenced to hard labor for breaking their labor agreements. In European colonies, of course, forced and compulsory labor continued wide into the 20th century: colonial administrations used a range of coercive measures to mobilize labor for the construction of infrastructures and for work in mines, plantations and other activities.

All such practices are prohibited under the Forced Labor Convention (No.29) adopted in 1930 by the International Labor Organization (ILO). This convention, which is still relevant today, defines forced or compulsory labour as “all work or service which is exacted under from any person under the menace of any penalty and for which the said person has not offered himself voluntarily” (Article 2.1). The Convention provides for certain exceptions, in particular with regard to military service for work of purely military character, so-called normal civic obligations, work of prisoners convicted in a court of law and working under the control of a public authority, work in emergency cases such as wars or other calamities, and minor communal services (Article 2.2).

A subsequent ILO Abolition of Forced Labour Convention No.105 adopted in 1957 prohibits the use of labor camps and the imposition of forced labor for political or ideological purposes, such as was the case in the “Gulags” of the former Soviet Union. This convention also specifies that forced labor can never be used for the purpose of economic development or as a means of political education, discrimination, labor discipline or punishment for having participated in strikes.

Ratification rates of these two ILO conventions are very high (at time of writing the only major countries that had not ratified were Canada, China, the Republic of Korea, and the U.S.). Over the years these Conventions have been extensively interpreted by the ILO’s *Committee of Experts on the Application of Conventions and Recommendation* (CEACR), which discusses the implementation of the Conventions ratified by member states. A detailed review of the three main elements of the term “forced or compulsory labor” (namely, work or service; menace of any penalty; and voluntary offer) as well as the exceptions from the scope of the conventions are described at length in the ILO General Survey report on forced labor (ILO, 2007b).

In addition to ILO Conventions, there are a number of other relevant international instruments. The United Nations adopted in 1956 *the Supplementary Convention of the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery*. This convention defines a number of practices to be abolished, including debt bondage, serfdom, and slavery-like practices (see box I). Under the supplementary convention, all persons subjected to any of these practices are considered as persons “of servile status”.

This legal framework has now been complemented by the United Nations *Protocol to Prevent, Suppress and Punish Trafficking in Persons* (the so-called Palermo Protocol), supplementing the United Nations *Convention against Transnational Organized Crime*, adopted by the UN General Assembly in 2000. Although convoluted, the definition of trafficking in the Palermo Protocol (see Box I) provides for an important distinction between “trafficking in persons”, which is characterized by the intent to exploit, and the act of “smuggling of migrants”, which - by contrast – only refers to the procurement of the illegal entry of a person into a State of which the person is not a national or a permanent resident. An expert group of the European

Commission concluded that “the key element to the Trafficking Protocol is the forced labor or slavery like outcomes” (European Commission, 2004, p.52).

Most countries have adapted all these international definitions to their own country-specific circumstances. In South Asia, for example, countries have focused on the complex problem of bonded labor. The *India Bonded Labour System (Abolition) Act* of 1976 defines a bonded labor system as one under which a debtor enters into an agreement with a creditor to the effect that he or she would render labor to the creditor for any unspecified period of time, either without wages or for very low wages, forfeiting the freedom of employment, the right to move freely or the right to sell his or her produce at market value. Such workers are considered unfree because “any factor which deprives a person of a choice of alternative and compels him to adopt one particular course of action may properly be regarded as “force” and if labor or services is compelled as a result of such “force” it would be “forced labor” (*Indian Supreme Court Judgement dated 18.09.1982*).

More recently, many industrial countries have addressed the problem of coerced labor under the umbrella of new legislation against human trafficking. The U.S. for example has adopted the Trafficking Victims Protection Act of 2000 and the Trafficking Victims Protection Reauthorization Act of 2005, which states that trafficking in persons is not only a transnational crime but “also occurs within the borders of a country, including the United States” (TVPRA of 2005, SEC.2.(4)). Under this act, traffickers can be sentenced for up to 20 years of imprisonment. The Act also provides for victim assistance and protects victims from deportation if they cooperate with law enforcement in the investigation and prosecution.

Box I: Definitions of debt bondage, serfdom, and human trafficking**Definitions:**

In the 1956 United Nations *Supplementary Convention of the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery*, debt bondage is defined as “the status or condition arising from a pledge by a debtor of his personal services or of those of a person under his control as security for a debt, if the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined” (Article 1(a)); Serfdom is defined as “the condition or status of a tenant who is by law, custom or agreement bound to live and labor on land belonging to another person and to render some determinate service to such other person, whether for reward or not, and is not free to change his status” (Article I(b)). Examples of slavery-like practices include forced marriages in exchange for payment and the practice of placing with another person a child under the age of 18 with a view to the exploitation of the child’s labor.

In the 2000 United Nations *Protocol to Prevent, Suppress and Punish Trafficking in Persons* (the so-called Palermo Protocol), supplementing the United Nations *Convention against Transnational Organized Crime*, trafficking in persons as “the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person for the purpose of exploitation”. The Protocol further specifies that “exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, or the removal of organs” (Article 3(a)).

II.2 The magnitude of contemporary forced labor and trafficking

Using international definitions, how much contemporary forced labor and human trafficking is there? This question has recently received increased international attention. Taken together, existing estimates suggest a global range of 12.3 to 27 million people in forced labour. Given the lack of official data, these estimates are tentative and provide an order of magnitude rather than exact counts. Indeed, reliable data is scarce, no good national estimates are available and hence it is not possible to simply aggregate national figures. This was pointed out clearly in a report by the U.S. Government Accountability Office (2006).

Regarding overall forced labor, the ILO has estimated in 2005 that there are 12.3 million people in forced labor worldwide (see ILO, 2005). This was calculated with a double sampling of reported cases worldwide during the period 1995-2004 and was interpreted as a minimum estimate (Belser, de Cock, Mehran, 2005 and 2007). A breakdown of this global estimate shows 1.4 to 2.0 million victims of forced commercial sexual exploitation, and 7.9 – 8.3 million people in forced labor exploitation. Globally, 20 percent of victims are in State-imposed forced labor. The overall ILO figure of 12.3 million contrasts with the 27 million estimated earlier by Bales (1999 and 2003), who aggregated national estimates from secondary sources validated by country experts. The difference in these two figures arises to a large extent because of the uncertainty about the true magnitude of bonded labor in Asia, particularly in India.

Estimates about the scale of human trafficking are equally difficult. As part of its global estimate, the ILO estimated that 2.4 million people are in forced labor as a result of both cross-border and internal human trafficking. This includes at least one third of cases in which people are trafficked for the purpose of labor exploitation rather than for forced sexual exploitation. Earlier, a U.S. Government agency had used a Markov chain Monte Carlo (MCMC) simulation to estimate that 600'000 to 800'000 people are victims of human trafficking every year, including 80 percent of women. Contrary to the ILO, this estimate refers to an annual flow of victims (rather

than a stock figure) and it does not include trafficking within countries (see a discussion on methodologies in Kutnick, Belser, and Danailova-Trainor, 2007).

Improving the accuracy of global estimates in the future will require a major effort in the area of data collection and country level estimation. Until recently few countries collected any data on forced labor and human trafficking. Now a small number of countries have a system in place to centralize data on cases of human trafficking from various sources, including the police, immigration authorities, public prosecution offices, NGOs, or labor inspection services. But even where such systems exist, they provide information only about the number of detected cases. This is a well-known problem in criminal statistics, “which refer to the number of known offences, out of an unknown sum total of crimes committed” (see Walklate, 2005). Estimating both the detected and the undetected part (i.e. “the dark figure”) of forced labor and human trafficking remains a major intellectual challenge.

II.3 Demand and supply for exploitable labor

Although victims of forced labor and trafficking are not auctioned on open markets, it is still useful to consider the demand and the supply of workers into exploitation. On the demand side, unscrupulous “employers” can exist in virtually any sector, particularly in labor-intensive sectors where savings on labor costs have a relatively high impact on profits (since a given reduction in labor costs increases profits in proportion to the ratio of labor costs to profits). Because forced labor and trafficking are almost always illegal, more of these employers are found in sectors or activities that take place outside of the coverage of the labor code and beyond the reach of labor inspectors, trade unions and police forces.

Agriculture, construction and domestic services probably deserve to be mentioned specifically. Agriculture is well-known for debt-bondage, especially in South Asia on which there exists a large literature (see for example Breman, 2007 or Srivastava, 2005) but also in Latin America (see Le Breton, 2003 or Bedoya, Bedoya and Belser, 2007). Although permanent year-round bondage still exists in some least developed regions, new forms of debt-bondage (sometimes called “neo-bondage”) – involving the manipulation of wage advances or loans to migrant labor - have emerged more

recently (see Lerche, 2007). Domestic services features prominently in the area of trafficking for labor exploitation in industrialized countries (Free the Slaves and University of California, 2004), in the Middle East - where temporary workers from South Asia sometimes live in the household of their employer in employment conditions “based on violence, exploitation and denial of fundamental freedoms” (Jureidini and Mourkarbel (2004, p.582) - as well as in poor developing countries, where families sometimes place their children with wealthier families (see for example the autobiography of Cadet, 1998, on the situation in Haiti). Contract labor in the construction sector in the Middle East is also an increasing concern.

The sex industry also stands out, and remains the primary focus of anti-trafficking efforts in many countries. While there are many stories of girls and young women who are forced into prostitution (see for example the testimonies in Derks, 2005, pp.129-131 or the stories in Malarek, 2003), there is still much disagreement about the exact meaning of “coercion” in this industry. While some feminist and religiously inspired abolitionists “are emphatic that all prostitution is sexual slavery”, other feminist groups disagree with this view. Abolitionist groups typically propose to address the “demand-side” of trafficking through the criminalization of all prostitution. Other feminist groups would like to see prostitution legitimized so that sex workers are “afforded the civil and labor rights enjoyed by other citizen and workers” (for a discussion of these positions O’Connell Davidson, 2006, p.17).

Supply of women and men into forced labor is conducted by traffickers and other intermediaries. In the case of human trafficking, it is usually assumed that large criminal networks are involved. The reality, however, is somewhat more complex. In the Netherlands for example only half of all cases involve large criminal networks, while the other half involves a maximum of 5 persons (BNRM, various). Private recruitment agencies also play a key role. Indeed, many workers who end up in forced labor are supplied by a range of legal, semi-legal or illegal private recruiters. Often, these recruiters operate in a legal vacuum or in an environment of impunity, where abuses are not investigated and prosecuted. This makes it possible to deceive workers about the nature of the jobs, the wages, and the living conditions that are proposed in the place of employment. Deception is often used by recruiters who have a monopoly over employment-related information. Credits are also used, often together with

deception, to recruit workers into forced labour situations. They can take the form of private loans, wage advances or they can be proposed to migrants for funding travel costs and upfront fees for employment abroad (see ILO, 2005).

II.4 Economic theory

Models of coercion

From an economic perspective, what exactly is coercion? This question has traditionally received more attention from sociologists or political scientists than from economists. There are, however, some exceptions. Naqvi and Wemhöner (1995) consider that coercion of one individual or agent by another is related to the concept of power and involves “compelling an agent to engage in transactions which, given the agent’s feasible set of actions, he would unilaterally not have chosen to engage in” (p.191). Hence, a powerful person is one who succeeds in coercing another into accepting a trade that makes the latter worse off than under the status quo. Basu (1986) considers that coercion is used to force a worker into an exchange “from which he gets a negative utility” (p.260).

Economic models show how coercion can arise in a variety of circumstances. In *dyadic* models (i.e. models that posit pairwise interactions between agents), coercion arises when, “given enough military power one agent could force the other to do whatever he wants him to do: to be slave, serf, indentured servant, or something different” (Naqvi and Wemhöner, 1995, p. 192). Case studies show that in practice this “military power” can include physical violence, withholding of wages, confiscation of identity papers, or a variety of threats addressed to the victim or her family (see ILO, 2005).

In so-called *triadic* models (i.e. models which involve the presence of a third party), coercion can also arise indirectly as a result of triangular relations. Basu (1986) shows that when a powerful employer makes an apparently unattractive job offer to a worker, and at the same time gives a threat that if he does not accept the package all third persons will no longer trade with him, it will be in the interest of a rational worker to accept this job offer. Hence, coercion can be the result of the employer’s

power to constrain workers' alternative opportunities, i.e. reduce labor's opportunity cost (see also Taylor, 1977, and Sevilla-Siero, 1991 for the related literature on "contrived dependence"). From the perspective of the worker such an agreement should be considered as an involuntary exchange since – in standard economic analysis- voluntary exchanges only take place among two parties when they both benefit from it. From the perspective of the employer, the use of coercion allows "maximum extortion".

From Basu's model, it follows that one feature of coercion is the impossibility for the victim to return to his or her previous level of utility. Basu (1986) illustrates this point with an example: A is walking down a dark alley and is threatened with a gun by B, who offers: "Either your watch or I kill you". Confronted with this "choice" A - who is a utility maximizer - parts with his watch. Although this may appear as a voluntary choice *from after A has met B*, one important element which makes this a case of coercion is the fact that once A has met B he or she can no longer return to his or her previous situation, with both her life *and* her watch.

Bonded labor

Is coercion associated with economic exploitation? In one seminal article, Bhaduri (1973) described traditional bonded labor in agriculture as a form of "semi-feudalism" which has "more in common with classical feudalism of the master-serf type than with industrial capitalism" (p.120). According to the author, in these circumstances exploitation results from the interlinking of transactions in credit, land and labor market between the same pair of landlord and tenant. Bhaduri's model shows how in such a setting, where landowners derive their income both from sharecropping and from usury linked to the perpetual indebtedness of tenants, technological improvements which raise labor productivity can be undesirable to landowners. This perverse incentive occurs when better technology increase landowners's produce from the land less than it diminishes his income derived from the loans to the sharecropper.

But not all economists see bonded labor as a form of exploitation. According to T.N. Srinivasan (1980 and 1989), a laborer's choice of a bonded labor contract is voluntary and will be chosen by the laborer "only if it yields him a higher lifetime welfare

compared with borrowing from an alternative lending institution" (1989, p.215). Thus, for him, bonded labor is in fact a laborer's rational choice in which – in exchange of consumption credit from the landlord – he or she agrees to provide labor services at less than their opportunity costs in the event that the harvest output is inadequate to repay the amount borrowed with accumulated interest. The laborer voluntarily agrees to restrict his freedom because of his debts. Srinivasan's conclusion, under these assumptions, is that "the policy of banning bonded labor will be unenforceable or, if forcibly implemented, will reduce the welfare of the sharecropper" (1989, p.215).

Such a conclusion may be too simple, even under the assumption that no coercion is used in bonded labor arrangements. More recent articles argue that even if debt bondage is ex-ante voluntary (i.e. workers or tenants place themselves into a servile position in order to avert acute poverty or starvation), a ban on bonded labor may still be desirable. Genicot (2002) for example shows that a policy of banning bonded labor does not need to rely exclusively on moral arguments or on the assumption that workers have limited rationality or imperfect information. If a ban on bonded labor expands an individuals' set of choices (instead of the set of choices being assumed to be exogenously determined), then it may increase the welfare of workers. In particular, a ban on bonded labor could break the monopoly power of the landlord in matters of credit, stimulate the development of a competitive credit market, and drive down interest rates. The welfare of laborers after the ban would be higher than under bonded labor arrangements.

Human trafficking

What about the link between trafficking and economic exploitation? Contrary to bonded labor, there is broad consensus in the literature that "maximum extortion" is the main – and often unique – objective of contemporary traffickers. The European police organization EUROPOL (2003) found that trafficking inevitably results in the financial exploitation of the victim, which often continues long after the movement from a source country to a destination country, and characterized trafficking as a "low risk – high reward" enterprise for organized crime. Shelley (2003) also believes that what makes human trafficking attractive to criminal groups is the combination of high

profits, low risk of detection, and minor penalties involved. Such an analysis is not only close to standard arguments in the economics of crime, but is also consistent with models which try to explain employers' noncompliance with labor codes (Squire and Suthiwart-Narueput, 1997).

What else, apart from better law enforcement and higher sanctions, can reduce traffickers' expected profits? Friebel and Guriev (2002) propose a model in which intermediaries *cum* traffickers lend migrants the funds to pay for the migration costs. Since migrants have no collateral, they commit to work for the intermediary in the country of destination – which is what allows traffickers to hold migrants in debt-bondage. According to the authors, one way destination countries could combat this problem is through regularization campaigns and policies that make it easier for migrants to gain legal status. Such policies would both reduce the incentives for migrants to use intermediaries and would also make it easier for migrants to default on their debts (based on the hypothesis that "trafficking agreements" are harder to enforce in the legal sector).

Market failure and comparative advantage

Forced labor clearly represents a departure from the standard neoclassical textbook model of the labor market, in which workers are always paid their marginal product (i.e. what they contribute to a firm's revenue) and where workers are free to move to another job if it pays just marginally more. As we have seen, cases of forced labor typically involve asymmetric information (when intermediaries or employers deceive workers) and the use of power (when threats, violence and manipulated debts are used to constrain workers' alternative opportunities). In this sense, forced labor and trafficking are "market failures" which require government intervention.

This view is recognized in a study by the OECD (1996), which analyzed forced labor as a source of economic inefficiency. It reasoned that if some firms have "property rights" on some workers (because of debt-bondage for example) and the consequence is that forced workers are paid less than under free market conditions and less than the marginal product, then it follows that forced labor reduces the economy's volume of output compared with an efficient situation. This occurs in spite of the fact that firms

which use forced labor have higher profits, arising from a rent to the firm which is equal to the difference between the lower wages paid to the forced workers and the market wages that would have to be paid in the absence of coercion. The OECD though did not describe forced labor as a “market failure”, but rather as a “labor market distortion” – a problem usually associated with too much government regulation, not too little.

Although inefficient, forced labor may still reinforce a country’s comparative advantage on global markets. Within trade theory, forced labor - like other core labor standards - has often been analyzed in the context of the standard Heckscher-Ohlin theory of comparative advantage. This model has been used extensively in the literature on openness and inequality (see for example Wood, 1995, or Anderson, 2005). Within this framework, forced labor is assumed to occur in a developing country with the effect of increasing the supply of unskilled workers (or depressing its cost), reducing the international price of the goods exported by this developing country, and consequently increasing the purchasing power of consumers in importing countries but nevertheless hurting firms and workers who compete against these imports (see, for example, Brown, Deardorff and Stern, 1996 or Busse, 2002).

This possibility has led to concerns about unfair competition and to debates about the desirability of trade sanctions. It also led to an unsuccessful proposal for a “social clause” linking market access to core labor standards under the rules of the World Trade Organization (WTO). As an alternative, ILO member states adopted the 1998 *Declaration on Fundamental Principles and Rights at Work*, committing to promote and realize freedom of association and collective bargaining, the elimination of child labor, the elimination of discrimination in respect of employment and occupation, as well as the elimination of forced labor (Tapiola, 2002). Mainstream economists have generally rejected the idea of using trade sanctions to promote core labor standards, preferring instruments such as company codes of conduct or “labeling” to inform consumers about conditions of production.

II. 5 Empirical analysis

Systematic empirical analysis of the impact of forced labor and human trafficking on economic variables has remained hampered by the absence of large and reliable datasets. As already pointed out, there are no reliable statistics that would permit standard cross-country or time-series regression analysis. Indeed, much of the available empirical analysis is currently based on case-studies or on *ad hoc* indicators of forced labor. In the following paragraphs we review some of the pioneering studies, whose methods and results are likely to be heavily challenged in the future, when better data will be available. We focus first on how the use of coercion affect labor costs and profits, and second on the links between forced labor/trafficking and globalization.

With regard to the first issue, the ILO has estimated that global illicit profits from human trafficking amounts to about US\$ 32 billion per year (see ILO, 2005 and Belser, 2005). This is based on the ILO estimate that there are 2.45 million victims of human trafficking, and that the average profit per victim is about US\$ 13'000 per year. Profits are calculated as total economic value-added minus payments made to victims, and hence refer to “annual profits made by the criminal agents or enterprises that exploit forced laborers at the point of destination (and out of which the intermediaries are being paid)” (Belser, 2005, p.7). Of course, average profits per victim vary according to region and activity of exploitation. Highest profits are made with victims who are trafficked into forced sexual exploitation, especially in rich countries. This is in line with economic theories, which define prostitution as an unusual activity because despite of being “low-skill, labor intensive” it is also generates very high earnings (Edlund and Korn, 2002). Trafficking for labor exploitation generates lower profits, even when traffickers capture all the due wages, because value-added in low-skilled labor intensive sectors such as agriculture or construction is much lower.

The empirical evidence of the link between non-trafficked bonded labor and profits is somewhat ambiguous. Some few studies highlight the high profitability of bonded labor. Kapadia’s (1995) case study of the gem-cutting industry in India describes for example how employers use loans to retain workers, pay exploitative wages and enhance their profits. Others, however, argue that things are more complicated. Lieten and Breman (2002), for example, have studied in details the bondedness of

sharecroppers in five districts of Sindh Province in Pakistan. They observed that most sharecroppers were bonded by debt to their landlords, and that this debt usually increases over time because of the high rate of interest. At the same time, however, Lieten and Breman considered that the economic conditions of landless wage laborers, who may have some more freedom to move around, “seems to be even worse” (p.341). They have not, however, undertaken a systematic study to compare the incomes of bonded workers and casual laborers.

On the issue of globalization, Busse (2002) has looked at the effect of forced labor on trade flows. He has asked whether developing countries can improve their competitiveness, and therefore increase exports of labor-intensive goods as a result of forced labor. To test this proposition, the author has constructed an indicator of forced labor which takes the value 3 if the ILO (2001) has reported no problem in either legislation or enforcement, the value 2 if there are problems with one of them, and the value 1 if there are inadequacies with both of them. Using this relatively crude indicator, and controlling for countries’ relative labor and skills endowment, Busse finds that forced labor is a significant determinant of comparative advantage, measured as the ratio of unskilled-labor-intensive exports in total (manufactured) exports. His results suggest that forced labor can lead to a stronger comparative advantage in labor-intensive exports, and hence some form of “unfair competition” in international trade.

In Busse and Braun (2003) the authors run similar regressions as in Busse (2002) but with more refined forced labor indicators (based on the aggregation of sub-indicators of different forms of forced labor). Interestingly, with such indicators forced labor is not a statistically significant determinant of trade (unless the control variables are dropped from the equations) – hence demonstrating how sensitive results are to the design of indicators. Thus, although forced labor may possibly boost the export of carpets or textiles produced by low-paid bonded laborers in India and Pakistan, or the export of steel made with charcoal produced by slave labor in Brazil, the authors rightly emphasize that the general correlation of comparative advantage with forced labor should be “regarded with some caution” (p. 61).

Another question is: does globalization reduce forced labor and trafficking or does it rather increase such practices? Neumayer and Soysa (2007), using the same indicator as in Busse and Braun (2003) as well as another forced labor indicator (ranging from 0 to 4) constructed by Kucera (2001), found that countries that are more open to international trade also have a lower incidence of overall forced labor. These results suggest that there is less forced labor in countries that are more integrated into global markets and, therefore, that globalization may have a beneficial effect. But opposite findings also exist. One tentative study on the determinants of cross-border sex trafficking finds empirical support for the view that destination countries tend to be more open to globalization (Danailova-Trainor and Belser, 2006).

The ILO's (2005) own assessment on this debate is that growing competitive pressures can have an adverse impact on conditions of employment and, at their extreme, can lead to forced labor. Suppliers, under pressure to reduce costs by every available means, can "pass on the burden to labor contractors, demanding that they provide workers at a cost so low as to make the use of coercive methods more likely". This, according to the ILO, is more likely to occur in places where "strong pressures to deregulate labor markets and to downsize labor inspection services may have allowed the proliferation of unregistered agencies which operate beyond the boundaries of state control" (p.63).

II.5 State-imposed forced labor

This review would not be complete without mention of state-imposed forced labor. Myanmar, ex-Burma, is perhaps the best known case of forced labor imposed by the military. The ILO (2005) has highlighted that the civilian population (as well as prisoners) have been reported to work involuntarily to clear landmines, transport military material, ensure maintenance of barracks and military installations, work in plantations and fields, construct roads, railways, bridges, airports, hydroelectric plants, model villages or military camps (see also Bollé, 1998). According to Babson (2001, p.83), these practices are symptomatic of "deep flaws in economic policy and in the relationship of the state to the people", which also explain the country's large informal sector. Beyond such general observations, there have been few empirical studies on the forced labor economy in Myanmar, for rather obvious reasons.

Regarding forced prison labor, one serious concern relates to China's so-called reeducation through labor system. Official figures from the Ministry of Justice indicate that 260'000 persons were detained under this system as of early 2004 for anti-social acts, including drug addiction, theft or prostitution (see ILO, 2005, p.27). Although no data is available on the goods made by Chinese prisoners in forced labor, there are concerns that some are exported to the rest of the world, included to the U.S. - despite the prohibition in the Tariff Act of 1930 to import any goods produced by prison labor. Similar concerns have been expressed about forced labor camps in North Korea (Hawk, 2003).

There are also concerns about forced prison labor in the U.S. and in a number of other industrial countries, due to the growing involvement of the private sector in the application of criminal justice. Such involvement can take several forms, from the hiring of public prison inmates to private contract management of prisons. As of September 2001, there were an estimated 181 private prison facilities in the world with a total capacity of 142'521 prisoners – of which 151 prisons were located in the U.S. and 42 in Texas alone (Fenwick, 2005). Several studies have tried to estimate tentatively the total value of prison-made goods. Levitt (1999) for example estimated that if every prisoner in the US worked full time, the annual prison industry output would be about 0.4 percent of GDP. This explains concerns about possible “unfair competition” to free workers on the U.S. labor market. But as in the case of all contemporary forced labor, much more research is needed to understand and measure the full economic effects of prison labor.

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